

WHAT IS CLAIMED IS:

1. An elevator system comprising:
 - an elevator car having a car door;
 - 5 a drive unit connected to said elevator car for moving said elevator car along an elevator shaft wall provided with shaft doors;
 - a controller connected to said drive unit for controlling movement of said elevator car along the elevator shaft wall;
 - a detecting means mounted in at least one of a region of each of the shaft doors
 - 10 and in a region of said car door for generating fault information, said detecting means being connected to said controller for generating to said controller said fault information; and
 - a status detecting unit connected to said controller for generating to said controller status information about a position and a speed of said elevator
 - 15 car whereby, in case of a fault in the region of one of the shaft doors, said controller permits operation of said elevator car between those floors which can be reached by said elevator car without having to pass the floor at the shaft door where the fault has occurred.
- 20 2. The elevator system according to claim 1 wherein said controller responds to said fault information representing a fault by placing a service call.
3. The elevator system according to claim 1 including a node connected to said detecting means and a bus connecting said node with said controller.
- 25 4. The elevator system according to claim 3 wherein a signal representing a detected fault generated from said detecting means is processed by said node to generate said fault information.
- 30 5. The elevator system according to claim 1 including a safety bus connecting said controller to at least one of said detecting means and said status detecting unit.

6. The elevator system according to claim 1 wherein said fault information includes a state of an incorrectly closed one of the shaft doors and said car door, said controller responding to said fault information representing an insubstantial gap by placing a service call without interrupting operation of the elevator system and
5 representing a substantial gap by stopping operation of the elevator system and placing a service call.

7. The elevator system according to claim 6 wherein said controller further responds to said fault information representing a substantial gap by moving said elevator
10 car at reduced speed to stop at a floor that can be reached without passing a shaft door having the substantial gap.

8. The elevator system according to claim 1 wherein said status detecting unit is mounted at said elevator car.
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9. The elevator system according to claim 1 wherein said controller further responds to a presence of a fault in the region of said car door by performing a recovery attempt by automatic opening and closing of said car door.

20 10. The elevator system according to claim 1 wherein said controller further responds to a presence of a fault in the region of one of the shaft doors by moving said elevator car behind the one shaft door and performing a recovery attempt by opening and closing the one shaft door through automatic opening and closing of said car door.

25 11. An elevator system comprising:
an elevator car having a car door;
a drive unit connected to said elevator car for moving the elevator car (2; 12; 28)
along an elevator shaft wall provided with shaft doors;
a controller connected to said drive unit for controlling movement of said elevator
30 car along the elevator shaft wall;

a detecting means mounted in at least one of a region of each of the shaft doors and a region of said car door and being connected to said controller for generating fault information to said controller; and
a status detecting unit connected to said controller for generating to said controller status information about a position and a speed of said elevator car whereby, in case of a fault in the region of one of the shaft doors, said controller moves said elevator car, after any passengers have disembarked, into a position directly behind the one shaft door in order to prevent a person from being able to fall through an open shaft door into said elevator shaft.

12. The elevator system according to claim 11 wherein said controller responds to said fault information representing a fault by placing a service call.

13. The elevator system according to claim 11 including a node connected to said detecting means and a bus connecting said node with said controller and wherein a signal representing a detected fault generated from said detecting means is processed by said node to generate said fault information.

14. The elevator system according to claim 11 including a safety bus connecting said controller to at least one of said detecting means and said status detecting unit.

15. The elevator system according to claim 11 wherein said fault information includes a state of an incorrectly closed one of the shaft doors and said car door, said controller responding to said fault information representing an insubstantial gap by placing a service call without interrupting operation of the elevator system and representing a substantial gap by stopping operation of the elevator system at that floor where the fault has occurred and placing a service call.

16. The elevator system according to claim 11 wherein said controller further responds to a presence of a fault in the region of said car door by performing a recovery attempt by automatic opening and closing of said car door.

17. An elevator system comprising:
an elevator car having a car door;
a drive unit connected to said elevator car for moving said elevator car along an
elevator shaft wall provided with shaft doors;
5 a controller connected to said drive unit for controlling movement of said elevator
car along the elevator shaft wall;
a detecting means mounted in at least one of a region of each of the shaft doors
and in a region of said car door for generating fault information, said
detecting means being connected to said controller for generating to said
10 controller said fault information; and
a status detecting unit connected to said controller for generating to said
controller status information about a position and a speed of said elevator
car whereby said detecting means ascertains whether a gap formed by an
incorrectly closed one of the shaft doors or said car door is substantial or
15 insubstantial, said controller responding to said fault information
representing a presence of an insubstantial gap by moving said elevator
car without restriction and placing a service call and said controller
responding to said fault information representing a presence of a
substantial gap at one of said shaft doors by moving said elevator car to a
20 floor that can be reached without passing the one shaft door having the
substantial gap in order to let passengers disembark.

18. The elevator system according to claim 17 including a node connected to said
detecting means and a bus connecting said node with said controller and wherein a signal
25 representing a detected fault generated from said detecting means is processed by said
node to generate said fault information.

19. The elevator system according to claim 17 wherein said controller responds to
said fault information representing a substantial gap by stopping operation of the elevator
30 system at that floor where the fault has occurred and placing a service call.

20. The elevator system according to claim 17 wherein said controller further responds to said fault information by performing a recovery attempt by automatic opening and closing of said car door.